

Allen-Bradley 22C-B090A103 Manual

Brand	Allen-Bradley
Product Series	22 Powerflex
Product Type	Fan & Pump

Description

The Allen-Bradley 22C-B090A103 drive is a PowerFlex 400 series adjustable frequency drive. It supports an input voltage range from 200 to 240 Volts AC and an output voltage range from 0 to 230 Volts AC. The input and output voltage ranges for the 22C-B090A103 adjustable frequency drive are both 3-phase voltages with a frequency range from 50 to 60 Hertz. Its current rating is 90 Amps at 45 degrees Celsius and 81 Amps at 50 degrees Celsius. Technical specifications for 22C-B090A103

Manufacturer Rockwell Automation

Brand Allen-Bradley

Part Number/Catalog No. 22C-B090A103

Product Line Powerflex 400

Drive Type Fan & Pump

Horsepower 30

Input Voltage 240 Volts AC

Phase Three-Phase

Enclosure Panel Mount - IP30 NEMA Type 1

Amperage 90 Amps

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The Allen-Bradley 22C-B090A103 PowerFlex 400 AC Adjustable Frequency Drive is designed for providing cost-effective torque and speed control, in fan and pump application system. The drive is designed with an integral PID controller which allows for consistency in process variables by digitally adjusting the drive's output frequency, and it allows for easy and convenient programming. The 22C-B090A103 has an operating voltage of 240V AC, with 90A output current, and it has an operation power rating of 22kW (30HP). It has an input range of 180V AC to 265V AC (3-phase), with $\pm 10\%$ input tolerance at 48 to 62Hz, and it has a real input power of 38.3KVA with 92A input current. The drive has an operational efficiency of 97.5%, with a 0.98 drive displacement power factor, and it has an Isolated Gate Bipolar (IGBT) braking transistor. The 22C-B090A103, like every drive in the PowerFlex 400 drive family, features 100ms wide power loss ride-through time, with a 2s Logic ride-thru time, and it provides Class 10 Electronic motor overload protection. It has BUS over and under voltage trips of 405V DC and 201V DC, and it provides 300% instantaneous fault over-current limit. The drive has an installed MOV which provides phase-to-ground and phase-to-phase protection, and it provides branch circuit protection using 125 Class CC fuses. The 22C-B090A103 drive provides motor control by using the standard Volt per Hertz motor control, producing Sine-Coded PWM, with a programmable 2 to 10 KHz carrier frequency range, and a programmable output frequency range between 0 and 320Hz.

The 22C-B090A103 drive has a selectable output voltage range of 0 to the rated motor voltage corresponding to the output frequency, and it has 7 digital inputs, with DIP-selectable 24V DC Sink/Source control and with an accuracy within $\pm 0.05\%$ of the set output frequency. The drive also has 2 DIP selectable analog voltage or current inputs (isolated and 1 non-isolated), with 2 Form C relay outputs, and 2 analog voltage or current outputs. The drive provides $\pm 1\%$ of the base speed regulation across a 60: 1-speed range, in open-loop slip compensation, and it offers users 2 programmable and independent acceleration and deceleration times, programmed from 0 to 600s, with 0.1s increments. It has a functional temperature range of -10 to 45°C (14 to 113°F) at 5 to 95% non-condensing humidity and it is stored at -40 to 85°C (-40 to 185°F) temperature range. The 22C-B090A103 has approximate dimensions of 250mm x 383.4mm x 206.1mm, in a NEMA Type 1 rated enclosure, and it is CE, and cUL-us certified.

Technical Specifications

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Horsepower 30

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Phase Three-Phase

Enclosure Panel Mount - IP30, NEMA/UL Type 1

Amperage 90 Amps Description

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